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## (54) POLYMERIZATION OF PHENOLIC COMPOUND OR THE LIKE AND ITS USE

(57)Abstract:

PROBLEM TO BE SOLVED: To obtain a polymer for various kinds of agents by reacting a (substituted) phenol compound, an alkoxyl group-containing aromatic compound, a quinone compound and an aromatic amine compound with a specific polyphenoloxydase. SOLUTION: A polyphenoloxydase having action oxidizing polyphenol, optimum reaction pH of nearly 8.2-8.5, 50° C optimum reaction temperature and about 33,000-76,000 molecular weight by gel permeation chromatography (GFC) analysis and about 5.9-7.0 isoelectric point measured by isoelectric focusing is reacted with a phenol compound, an alkoxyl group-containing aromatic compound, a halogenated phenol compound, a quinone compound or an aromatic amine compound to provide the objective polymer of phenolic compound useful for thickeners, stabilizers, emulsions, dispersions, antioxidants, adhesives, coating materials, soil modifiers, deodorizers, bactericides, antifungal agents, insecticides, ink agents, etc.